



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/049,296      | 08/06/2002  | Maurice Israel       | 033525-002          | 9468             |

21839 7590 08/22/2006

BUCHANAN, INGERSOLL & ROONEY PC  
POST OFFICE BOX 1404  
ALEXANDRIA, VA 22313-1404

EXAMINER

EMCH, GREGORY S

ART UNIT PAPER NUMBER

1649

DATE MAILED: 08/22/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/049,296 | <b>Applicant(s)</b><br>ISRAEL ET AL. |  |
|                              | <b>Examiner</b><br>Gregory S. Emch   | <b>Art Unit</b><br>1649              |  |

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 46-70 is/are pending in the application.
- 4a) Of the above claim(s) 57-70 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 46-70 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 15 June 2006 has been entered.

### ***Response to Amendment***

Claims 46-70 are pending in the instant application.

Claims 57-70 were previously withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

Hence, claims 46-56 are under examination in the instant office action.

The Text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Any objection or rejection of record, which is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.

### ***Claim Rejections - 35 USC § 103***

Claims 46-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reddy & Sastry (25 May 1979; Brain Research 168(2): 287-298) in view of Israel et al.

(Biochem J. 1976 Oct 15;160(1):113-5, Exhibit B in declaration under 37 C.F.R. § 1.132 from 15 June 2006).

The claims are directed to a method of preparing calibrated pieces of mammalian cerebral tissue, the method comprising: (i) obtaining one or more samples of mammalian cerebral nerve tissue, (ii) cutting the one or more samples into pieces, (iii) washing the pieces in mammal Krebs solution, (iv) passing the pieces through at least one grid having a mesh size to produce calibrated pieces of mammalian cerebral material having a mean size between  $0.1 \text{ mm}^3$  and  $5 \text{ mm}^3$ , and (v) harvesting the calibrated pieces of mammalian cerebral tissue.

Reddy & Sastry teach a method of isolating a preparation of rat cerebral tissue comprising mincing said tissue in Krebs-Ringer solution, then passing said tissue in Krebs-Ringer solution through a nylon bolting cloth of  $433 \mu\text{m}$ , and harvesting the resultant tissue (p. 289), as in claims 46, 49, and 50. Reddy & Sastry teach that the rat cerebral samples consisted of "whole brain" preparations defined as "cortex, cerebellum, and brain stem" (pp. 288-289), as in claims 47 and 49. Reddy & Sastry also teach dissection of the brain preparations into the three anatomical regions, (again, the cortex, cerebellum and brain stem; p. 289), as in claim 48. Reddy & Sastry teach that the tissue preparation was left in a 25 mL conical tube, and due to the force of gravity the cubed tissue would fall to the bottom of the tube being equivalent to "spontaneous sedimentation" (p. 289), as in claim 54. Reddy & Sastry also teach the brain composition (the isolation thereof; pp. 288-289) as described above, as in claims 55 and 56.

Reddy & Sastry do not teach the mesh sizes and resultant size of the pieces of neural tissue recited by the instant claims, e.g. claims 46 and 51-53.

However, Israël et al. teaches passing neural tissue from Torpedo through mesh sizes of  $1000\ \mu\text{m}$  (1mm) on each side (p.113, col.2, line14), as in claims 51-53. Further, according to Applicants' own arguments (e.g., Table 1 of declaration under 37 C.F.R. § 1.132 from 15 June 2006), the resultant tissue would be approximately  $0.52\ \text{mm}^3$ , as in claim 46. It is noted that it is irrelevant that the Israël et al. reference passed the pieces of neural tissue through other mesh sizes following the use of the 1mm mesh.

Therefore, it would have been obvious to the person of ordinary skill in the art at the time the invention was made to arrive at the claimed invention by combining the methods of the Reddy & Sastry reference with those of the Israël et al. reference. The skilled artisan would have been motivated to make these modifications, since slicing neural tissue, i.e., preparing pieces of neural tissue that are larger and more viable than the pieces of tissue taught by Reddy & Sastry, was well-known and routine at the time of Applicants' invention. The person of ordinary skill in the art would have had a reasonable expectation of success because both references teach that the methods would work (entire documents). Accordingly, claims 46-56 are rejected under 35 U.S.C. 103(a).

### ***Conclusion***

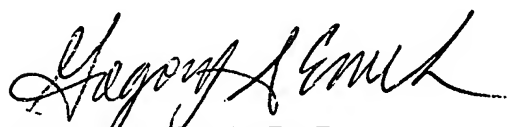
No claims are allowed.

***Advisory Information***


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory S. Emch whose telephone number is (571) 272-8149. The examiner can normally be reached on Monday through Friday from 9AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet L. Andres can be reached at (571) 272-0867. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Gregory S. Emch, Ph.D.  
Patent Examiner  
Art Unit 1649  
15 August 2006



JANET L. ANDRES  
SUPERVISORY PATENT EXAMINER